

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A device for coupling a signal onto an elongated conductor of an electrical power delivery system, the device comprising:

an elongated conductive member having a length of at least six inches but less than 200 feet, said elongated conductive member adapted to be positioned in parallel with the elongated conductor;

an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor; and

a data signal generator adapted to be connected to the elongated conductive member for supplying a data signal to the elongated conductive member;

wherein the elongated conductive member is adapted to capacitively couple the data signal onto the elongated conductor.

2. (currently amended) The device of claim 1 wherein the elongated conductive member comprises a cable adapted to be positioned adjacent the elongated conductor.

3. (currently amended) The device of claim 2 wherein the elongated conductive member is formed from a piece of common insulated cable.

4. (currently amended) The device of claim 1 wherein the elongated conductive member comprises a conductive medium wrapped about the elongated conductor.

5. (currently amended) The device of claim 1 wherein the elongated conductive member comprises an outer layer of a coaxial cable; and wherein an inner conductor of the coaxial cable is adapted to be connected to the elongated conductor of the electrical power delivery system.

6. (original) The device of claim 5 wherein an end of the inner conductor is adapted to be connected to a neutral wire or a ground wire.

7. (currently amended) The device of claim 1 wherein the elongated conductor comprises a neutral wire or a ground wire of the electrical power delivery system; and wherein the elongated conductive member is adapted to capacitively couple the data signal onto the neutral wire or the ground wire.

8. (currently amended) The device of claim 1 wherein the elongated conductor comprises a grounding wire of a surge arrester and wherein the elongated conductive member comprises a conductive medium adapted to be wrapped around the grounding wire.

9. (currently amended) The device of claim 1 wherein the elongated conductor comprises a phase conductor of the electrical power delivery system; and wherein the elongated conductive member is adapted to capacitively couple the data signal onto the phase conductor.

10. (currently amended) The device of claim 1 wherein the length of the elongated conductive member is at least 12 inches but less than 100 feet.

11. (currently amended) The device of claim 1 wherein the length of the elongated conductive member is at least 2 feet but less than 50 feet.

12. (currently amended) The device of claim 1 wherein the length of the elongated conductive member is at least 2 feet but less than 10 feet.

13. (currently amended) The device of claim 1 wherein the length of the elongated conductive member is at least 2 feet but less than 6 feet.
14. (currently amended) The device of claim 1 further comprising an insulator adapted to be positioned between the elongated conductive member and the elongated conductor.
15. (currently amended) The device of claim 1 wherein the elongated conductive member is adapted to be positioned along the elongated conductor such that a capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.
16. (currently amended) The device of claim 15 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.
17. (currently amended) The device of claim 15 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 15 pF/cm.
18. (currently amended) The device of claim 1 further comprising a resistor connected in series with the elongated conductive member and the data signal generator.
19. (currently amended) The device of claim 1 having no magnetic core for coupling the data signal onto the elongated conductor.
20. (currently amended) A device for capacitively coupling a signal onto an elongated conductor of an electrical power delivery system, the device comprising:
 - a elongated conductive member adapted to be positioned along the elongated conductor, said elongated conductive member positioned in parallel with the elongated conductor;
 - an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator

separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor;

wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.

21. (currently amended) The device of claim 20 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.

22. (currently amended) The device of claim 20 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 15 pF/cm.

23. (currently amended) A method of installing a device for capacitively coupling a signal onto a elongated conductor of an electrical power delivery system, the method comprising the steps of:

selecting a elongated conductive member having a length of at least six inches but less than 200 feet; ~~and~~

providing a data signal generator to supply a data signal to the elongated conductive member; ~~and~~

positioning the elongated conductive member in parallel with the elongated conductor in order to capacitively couple the data signal onto the elongated conductor; and

positioning an insulator between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member.

24. (currently amended) The method of claim 23 wherein the selecting step further comprises selecting an insulated elongated conductive member.

25. (currently amended) The method of claim 23 wherein:
 the selecting step further comprises selecting a cable; and
 the positioning step further comprises positioning the cable adjacent to the elongated conductor so that the cable capacitively couples the data signal onto the elongated conductor.

26. (currently amended) The method of claim 23 wherein:
 the selecting step further comprises selecting a length of coaxial cable; and
 the providing step further comprises providing a data signal generator to supply a data signal to an outer layer of the coaxial cable; and
 the positioning step further comprises connecting an inner conductor of the coaxial cable to the elongated conductor of the electrical power delivery system.

27. (original) The method of claim 26 further comprising connecting an end of the inner conductor to a neutral wire or a ground wire.

28. (currently amended) The method of claim 23 wherein the positioning step further comprises positioning the elongated conductive member along the elongated conductor so that a capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.

29. (currently amended) A device for coupling a signal onto an elongated conductor of an electrical power delivery system, the device comprising:

an elongated conductive member having a length of at least six inches but less than 200 feet, said elongated conductive member adapted to be positioned in parallel with the elongated conductor;

an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor; and

a data signal generator adapted to be connected to the elongated conductive member for supplying a data signal to the elongated conductive member;

wherein the elongated conductive member is adapted to capacitively couple the data signal onto the elongated conductor without a magnetic core such that the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.

30. (currently amended) A device for detecting a data signal coupled onto an elongated conductor of an electrical power delivery system, the device comprising:

a elongated conductive member having a length of at least six inches but less than 200 feet, said elongated conductive member adapted to be positioned in parallel with the elongated conductor;

an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor; and

a detector connected to the elongated conductive member for detecting the data signal from the elongated conductive member;

wherein the elongated conductive member is adapted to be capacitively coupled to the elongated conductor.

31. (currently amended) The device of claim 30 wherein the elongated conductive member comprises a cable adapted to be positioned adjacent the elongated conductor.

32. (currently amended) The device of claim 31 wherein the elongated conductive member is formed from a piece of common insulated cable.

33. (currently amended) The device of claim 30 wherein the elongated conductive member comprises a conductive medium wrapped about the elongated conductor.

34. (currently amended) The device of claim 30 wherein the elongated conductive member comprises an outer layer of a coaxial cable; and wherein an inner conductor of the coaxial cable is adapted to be connected to the elongated conductor of the electrical power delivery system.

35. (original) The device of claim 34 wherein an end of the inner conductor is adapted to be connected to a neutral wire or a ground wire.

36. (currently amended) The device of claim 30 wherein the elongated conductor comprises a neutral wire or a ground wire of the electrical power delivery system.

37. (currently amended) The device of claim 30 wherein the elongated conductor comprises a grounding wire of a surge arrester and wherein the elongated conductive member comprises a conductive medium adapted to be wrapped around the grounding wire.

38. (currently amended) The device of claim 30 wherein the elongated conductor comprises a phase conductor of the electrical power delivery system; wherein the elongated conductive member is adapted to capacitively couple the data signal onto the phase conductor.

39. (currently amended) The device of claim 30 wherein the length of the elongated conductive member is at least 12 inches but less than 100 feet.

40. (currently amended) The device of claim 30 wherein the length of the elongated conductive member is at least 2 feet but less than 50 feet.

41. (currently amended) The device of claim 30 wherein the length of the elongated conductive member is at least 2 feet but less than 10 feet.

42. (currently amended) The device of claim 30 wherein the length of the elongated conductive member is at least 2 feet but less than 6 feet.

43. (currently amended) The device of claim 30 further comprising an insulator adapted to be positioned between the elongated conductive member and the elongated conductor.

44. (currently amended) The device of claim 30 wherein the elongated conductive member is adapted to be positioned along the elongated conductor such that a capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.

45. (currently amended) The device of claim 44 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.

46. (currently amended) The device of claim 44 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 15 pF/cm.

47. (currently amended) The device of claim 30 further comprising a resistor connected in series with the elongated conductive member and the data signal generator.

48. (currently amended) The device of claim 30 having no magnetic core for coupling the data signal onto the elongated conductor.

49. (currently amended) A device for detecting a signal coupled onto an elongated conductor of an electrical power delivery system, the device comprising:

a elongated conductive member adapted to be positioned along the elongated conductor, said elongated conductive member adapted to be positioned in parallel with the elongated conductor; and

an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the

elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor;

wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.

50. (currently amended) The device of claim 49 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.

51. (currently amended) The device of claim 49 wherein the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 15 pF/cm.

52. (currently amended) A method of installing a device for detecting a data signal coupled onto an elongated conductor of an electrical power delivery system, the method comprising the steps of:

selecting a elongated conductive member having a length of at least six inches but less than 200 feet;

positioning the elongated conductive member in parallel with the elongated conductor in order to capacitively couple the elongated conductive member with the elongated conductor; ~~and~~

providing a data signal detector to detect the data signal from the elongated conductive member; and

positioning an insulator between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member.

53. (currently amended) The method of claim 52 wherein the selecting step further comprises selecting an insulated elongated conductive member.

54. (currently amended) The method of claim 52 wherein:
 the selecting step further comprises selecting a cable; and
 the positioning step further comprises positioning the cable adjacent to the elongated conductor so that the cable and the elongated conductor are capacitively coupled.

55. (currently amended) The method of claim 52 wherein:
 the selecting step further comprises selecting a length of coaxial cable; and
 the providing step further comprises providing a data signal detector to detect the data signal from an outer layer of the coaxial cable; and
 the positioning step further comprises connecting an inner conductor of the coaxial cable to the elongated conductor of the electrical power delivery system.

56. (original) The method of claim 55 further comprising connecting an end of the inner conductor to a neutral wire or a ground wire.

57. (currently amended) The method of claim 52 wherein the positioning step further comprises positioning the elongated conductive member along the elongated conductor so that a capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 10 pF/cm.

58. (currently amended) A device for detecting a data signal coupled onto an elongated conductor of an electrical power delivery system, the device comprising:

an elongated conductive member having a length of at least six inches but less than 200 feet, said elongated conductive member adapted to be positioned in parallel with the elongated conductor;

an insulator adapted to be positioned between the elongated conductive member and the elongated conductor along the length of the elongated conductive member such that the insulator separates the elongated conductor and the elongated conductive member along the length of the elongated conductive member and such that the elongated conductive member is capacitively coupled along its length to the elongated conductor; and

a data signal detector adapted to be connected to the elongated conductive member for detecting the data signal from the elongated conductive member;

wherein the elongated conductive member is adapted to be capacitively coupled to the elongated conductor without a magnetic core such that the capacitive coupling measured between the elongated conductive member and the elongated conductor is greater than 5 pF/cm.